State of Alaska Department of Fish and Game Nomination for Waters Important to Anadromous Fish

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| Nomination # | - × R | Regional Supervisor | | | | |
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| Revision Code: | | - 1163 | Draft | ed | Date | |
| | OBSERVA | TION INFORMAT | ION | | | |
| Species | Date(s) Observed | Spawning | Rearing | Migration | Anadromous | |
| SOCKEYE | 7/3-6/78 | | X | × | | |
| SOCKEYE | 8/30/78 | × | | | | |
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Dist. 11-20-78: Arrey, Schneiderham, Jonrawe/Baster

DATE: November 14, 1978 CLINELIUML FIGHERIES

ANCHORAGE

TO: | Ron Regnart Regional Supervisor Division of Commercial Fisheries Anchorage

FILE NO:

TELEPHONE NO:

Richard Russell RBR FROM: Fisheries Biologist Division of Sport Fisheries King Salmon

SUBJECT: Lake Clark National Park/Preserve Waters Inventory

During the summer of 1978 I was involved in a series of field surveys of waters proposed for inclusion in a Lake Clark National Park/Preserve. The surveys, jointly funded by the National Park Service and Alaska Department of Fish and Game, were of an inventory nature. Data on fish species distribution was a prime goal sought. Additional data collected included lengths and weights of fish caught, stomach samples, scales and otoliths for age analysis, limited limnology, and observations regarding human usage of each water body.

Two of the surveys were of waters tributary to the Stony River system...Telaquana Lake and Two Lakes. As information regarding these lakes might be of interest to you and your staff I've prepared the following summary based on our observations.

Two Lakes (tributary to Necons River) My field assistant and I surveyed Two Lakes from July 3-6. We camped on the spit separating the two main lake basins and travelled the lake via 12 foot Avon raft.

We fished variable mesh monofilament gillnets in the lake (both floating and diving nets) for a total of 71 gillnet hours and caught the following: 3 lake trout, 5 round whitefish, 17 northern pike, 4 longnosed suckers, and 2 adult prespawn sockeye salmon.

Utilizing dipnets along shore, and a back-pack electroshocker in small inlets we caught sculpins (Cottus cognatus), 9 spine stickleback, juvenile Dolly Varden (actually keyed out), and sockeye fry.

The two adult sockeye caught measured respectively:

| Color | Fork Length(mm) | Total Length(mm) | Wt. | <u>Sex</u> | Maturity |
|---------------|-----------------|------------------|--------------|------------|----------|
| Still silvery | 593 | 630 | 5 lbs.13 oz. | Female | Prespawn |
| Reddish cast | 701 | 750 | 9 lbs. 4 oz. | Male | Prespawn |

Fork lengths for the fry caught were as follows:

| 42 (mm) | 39 | 33 | 32 | 31 | 33 |
|---------------------------|----------|----|----------------|----------------|----|
| 38 | 39 36 | 31 | 32 32 32 | 32 33 31 | |
| 33 | 34 | 33 | 32 | 33 | |
| 43 (mm) 38 33 30 | 40 | 33 | 32 | 31 | |

I have a sample of 16 sockeye fry preserved in formalin which would be available if you wanted to run them through the stock separation people, or whatever.

Awad Catalog t 335-30-16600We observed on July 5 a school of sockeye jumpers at the outlet of Two Lakes but the water was too murky to permit a bankside estimate of any accuracy. I doubt there were more than 500 however.

I also aerially surveyed this lake and the Necons River on August 30. Survey was done in a Cessna 172 at altitude approximately 400 feet. I observed no salmon in Necons River below Two Lakes outlet. Water was too murky for anything other than surveillance of the shallows. I did see an estimated 120-165 sockeye spawning at the north end of Two Lakes in a couple of small side channels off Tlikakila River in the vicinity of Koslovskys hunting lodge.

Anad. catalog #

Telaquana Lake (tributary to Telaquana River)

We surveyed this lake [1] We surveyed this lake July 10-16. Gillnetting (83 hours) yielded 20 lake trout, 240-3190-000 7 round whitefish, 16 northern pike, 27 longnosed suckers, 2 least ciscos, and 1 chum salmon.

> Electrofishing produced catches sculpins (Cottus cognatus), 9 spine stickleback, juvenile Dolly Varden, juvenile pike, and sockeye fry (some just buttoned-up).

Fork lengths of the sockeye fry were as follows:

| 30 (mm) | 29 | 29 | 31 |
|---------------|----|----|----|
| 30 (mm) 30 | 30 | 29 | 31 |
| 30 | 27 | 30 | 31 |
| 27 | 30 | 28 | |

All 15 are preserved and available here in King Salmon.

Additionally, I observed on July 13, sockeye adults schooled in several locations within the upper quarter mile of Telaquana River, just below the lake outlet. I estimated 1000-2000 total were present.

I also aerially surveyed Telaquana Lake on August 30 and observed an estimated 400-600 sockeye beach spawning at the east end of the lake and another 500-600 spawning in the upper quarter mile of Telaquana River. I flew the entire lake shore and didn't observe any other beach spawning. Visibility into the water was estimated at 10 feet (Secchi disc trans on 6-12-78 was 3.8 meters). I also surveyed Telaquana River down to its confluence with the Stony River and saw no salmon other than those mentioned above.

Depending on how our funding goes I may resurvey Telaquana Lake again in 1979. If you or your staff would like any particular specimens or samples collected during this survey I would be glad to work them in as time and manpower permit.

cc Gwartney Redick